CHAPTER 4

Energy Efficiency Indices

Wisconsin's Energy Independent Communities

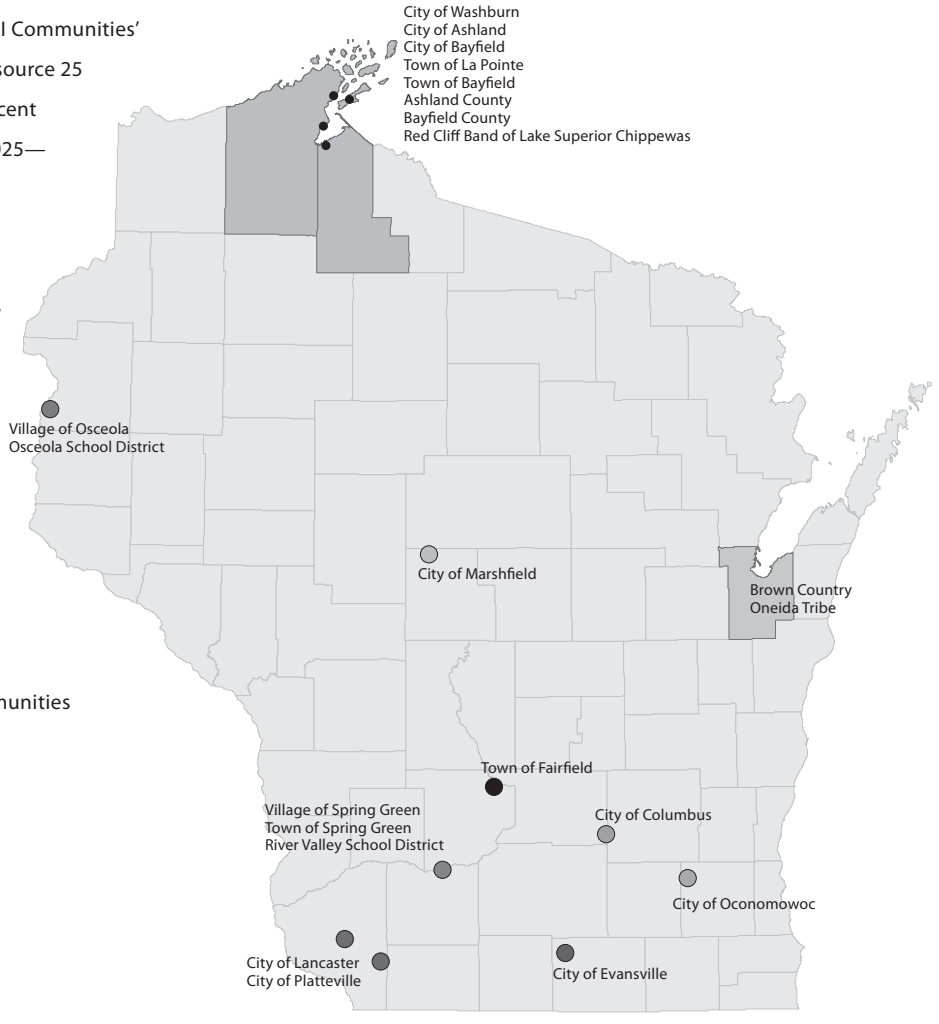
On March 31, 2008, Governor Doyle announced the Energy Independent Community Partnership[1]. As of March 2010 there are more than 135 EI Communities.

The EI Communities have made a public commitment to reduce their energy consumption. Through March 2010, 121 communities have passed a 25 x '25 resolution, and 17 communities have a publicly-supported resolution. The resolutions identify a community's adoption of the 25 x '25 goals set forth by Governor Doyle in The Declaration of Energy Independence[2].

During 2009, OEI funded a pilot program for EI Communities' development of a plan for the community to source 25 percent of its transportation fuels, and 25 percent of its electricity from renewable sources by 2025—known as a 25 x '25 plan.

The planning process includes evaluating current energy consumption to set a baseline, identifying energy efficient and renewable energy projects, and selecting a pathway to the 25 x '25 goal. Ten pilot communities were selected in 2009. An additional 11 communities were selected for funding in 2010. This program moves Wisconsin's statewide commitment to 25 x '25 to a local level, engaging communities and citizens.

Additional information regarding the EI Communities initiative can be found on the OEI website at: www.energyindependence.wi.gov



WISCONSIN'S 2009 EI PILOT COMMUNITIES

1 See: http://www.wisgov.state.wi.us/journal_media_detail.asp?prid=3268&locid=19

2 See: http://www.wisgov.state.wi.us/docview.asp?docid=8799

Indices of Wisconsin Energy Efficiency

These indices can be useful in evaluating energy efficiency trends in Wisconsin. Total energy use per dollar of gross state product, and electricity use per dollar of gross state product trended downward.

1970-2008 MILLIONS OF BTU

Year	Total Energy Use Per $1,000 GSP[a]	Electric Energy Use Per $1,000 GSP[a]	Residential Energy Use Per Capita[b]	Commercial Energy Use Per Employee[d]	Industrial Energy Use Per $1,000 Manufacturing Value Added[a,c]	Agricultural Energy Use Per Acre
1970	12.7	0.94	74.0		10.6	1.08
1975	12.1	1.05	74.2		8.6	1.2
1980	10.5	1.06	75.7		7.3	1.4
1985	9.6	1.09	71.1		7.3	1.4
1990	9.5	1.12	72.0	162.6	7.5	1.2
1995	9.1	1.11	77.9	166.9	7.0	1.3
1996	8.8	1.08	78.4	166.4	6.7	1.3
1997	8.4	1.05	74.3	161.5	6.9	1.3
1998	7.9	1.04	69.2	156.3	6.5	1.2
1999	7.9	1.03	73.0	161.7	6.4	1.3
2000	7.9	1.03	75.1	160.7	6.5	1.2
2001	7.8	1.04	74.3	160.0	6.9	1.2
2002	7.7	1.03	76.3	162.1	6.5	1.3
2003	7.6	1.02	79.3	151.7	6.3	1.3
2004	7.4	1.00	77.6	146.8	6.8	1.3
2005	7.3	1.02	76.2	155.3	6.5	1.2
2006	6.9	1.00	71.3	150.8	6.1	1.5
2007	7.4	1.03	76.8	160.2	6.4	1.5
2008[p]	**7.3**	**1.00**	**77.4**	**163.3**	**6.3**	**1.5**

a Manufacturing Value Added and Gross State Product in 2008 dollars, deflated with Gross Domestic Product Implicit Price Deflator.

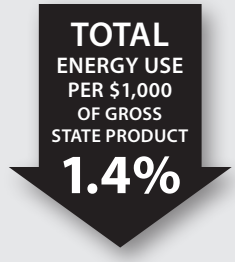
b Not adjusted for yearly variations in temperature.

c Value added data for Wisconsin not available. Value added estimated using U.S. and Wisconsin trends.

d Per Employee Data not available prior to 1990 due to change in coding from SIC to NAICS — see page 136.

p Preliminary data.

Source: Wisconsin Department of Workforce Development, unpublished employment data; U.S. Department of Commerce, *Annual Survey and Census of Manufacturers* http://www.census.gov/mcd/asm-as3.html (1972-2001); households estimated by Wisconsin Department of Administration; Wisconsin Department of Agriculture, Trade and Consumer Protection, *Wisconsin's Agricultural Statistics, 2009*; gross state product; other tables in this publication for total resource energy use and use by sector.



Total energy use per $1,000 of gross state product decreased by 1.4 percent.

In 2008, Wisconsin energy use per employee increased by 1.9 percent. Industrial energy use per $1,000 manufacturing value added decreased 2.6 percent and is 40.8 percent lower than in 1970. Agricultural energy use per acre decreased 2.2 percent in 2008.

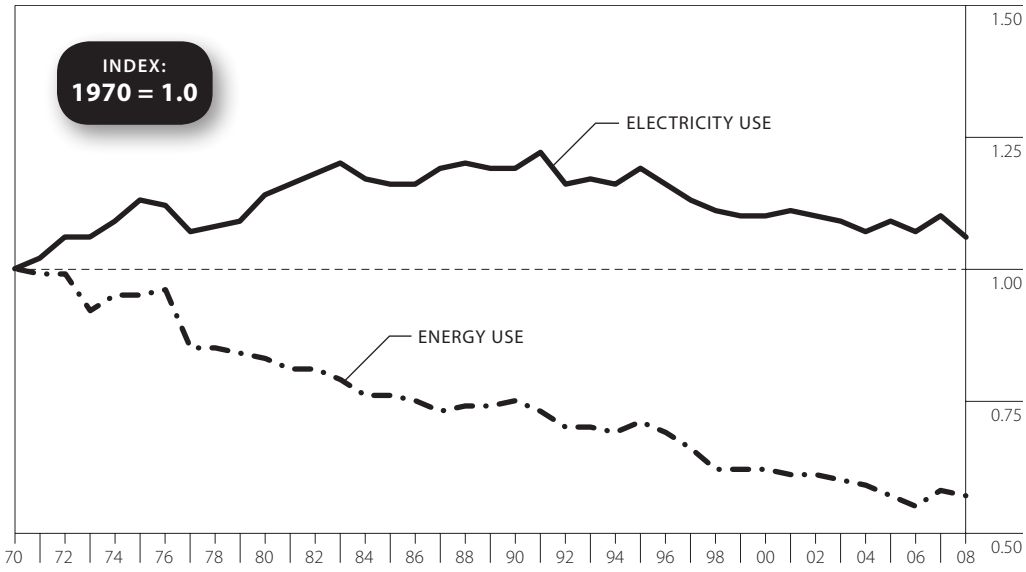
Energy efficiency activities in the residential and commercial sectors are measured primarily by recording the number of buildings that have received professional audits, installed energy efficiency improvements or were certified as meeting energy efficiency building codes.

Indices of Wisconsin Energy Efficiency

WISCONSIN ENERGY USE PER DOLLAR OF GROSS STATE PRODUCT

WISCONSIN ELECTRICITY USE PER DOLLAR OF GROSS STATE PRODUCT

1970-2008 ENERGY AND ELECTRICITY USE PER DOLLAR OF GROSS STATE PRODUCT[a]



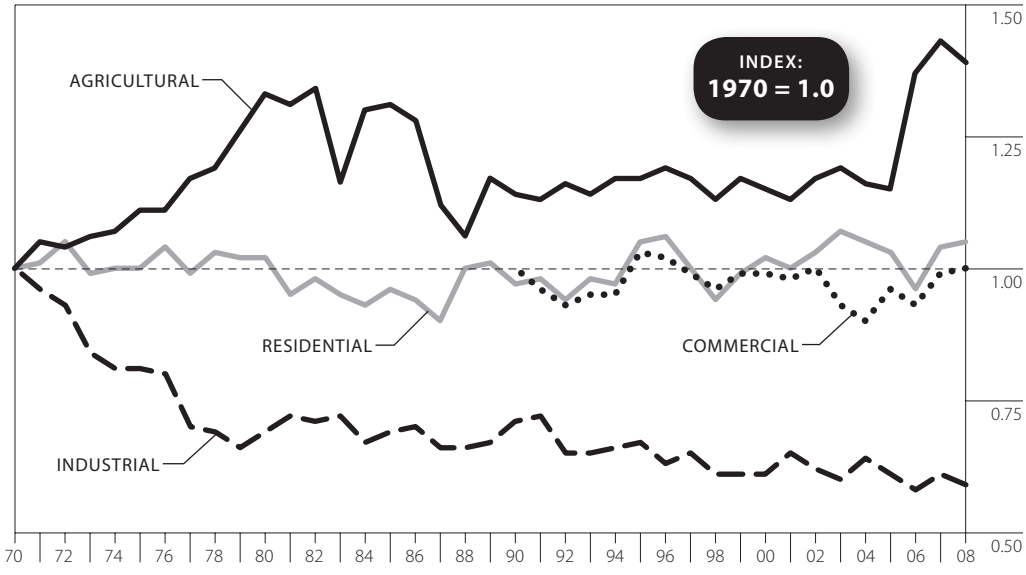
RESIDENTIAL ENERGY USE PER CAPITA

COMMERCIAL ENERGY USE PER EMPLOYEE

INDUSTRIAL ENERGY USE PER UNIT MANUFACTURING VALUE ADDED OUTPUT

AGRICULTURAL ENERGY USE PER ACRE

1970-2008 ENERGY INDICES BY ECONOMIC SECTOR[a]

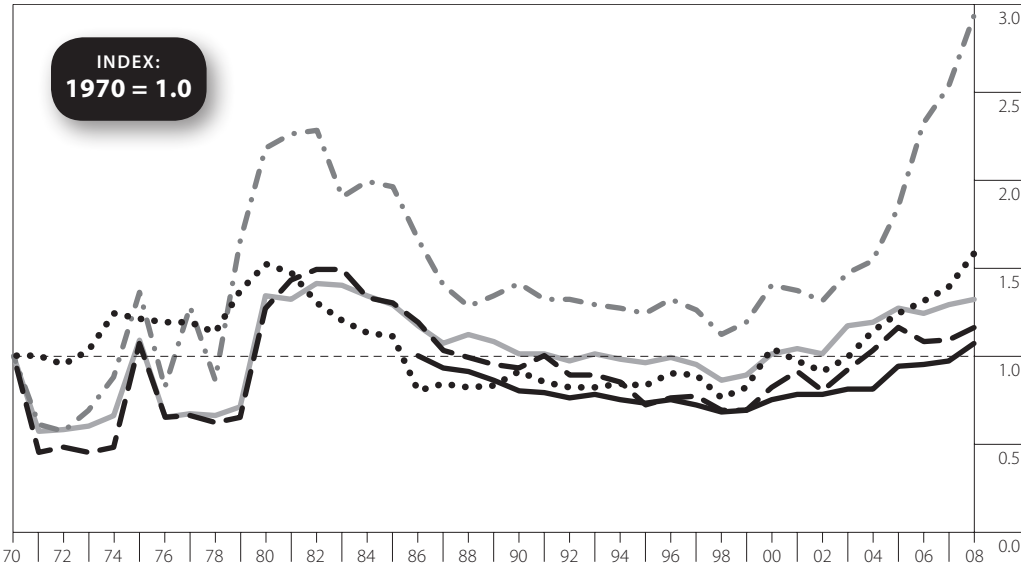


a All data, except commercial employment data, normalized to 1.0 in 1970, an arbitrary baseline to which all other years can be compared. Commercial employment data normalized to 1990, when industrial codes changed from SIC to NAICS – see page 136.

Source: Wisconsin Office of Energy Independence.

Indices of Wisconsin Energy Expenditures, 2008 Dollars

1970-2008 2008 DOLLARS



Year	Agricultural Expenditures Per Acre	Commercial Expenditures Per Employee[a]	Residential Expenditures Per Household	Industrial Expenditures Per $1,000 Value Added	Transportation Expenditures Per Vehicle
1970	12		1,539	37	1,281
1975	17		1,669	39	1,545
1980	27		2,065	47	1,950
1985	24		1,987	48	1,417
1990	17	1,104	1,549	35	1,169
1995	15	1,005	1,473	27	1,061
1996	16	1,041	1,529	28	1,156
1997	16	992	1,457	29	1,137
1998	14	934	1,319	25	976
1999	15	959	1,373	25	1,051
2000	17	1,040	1,554	30	1,337
2001	17	1,078	1,607	34	1,248
2002	16	1,073	1,561	30	1,163
2003	18	1,125	1,795	34	1,274
2004	19	1,125	1,826	38	1,459
2005	23	1,300	1,955	43	1,590
2006	29	1,309	1,910	40	1,682
2007	31	1,342	1,986	40	1,775
2008[p]	**36**	**1,473**	**2,025**	**43**	**2,025**

a All data, except commercial employment data, normalized to 1.0 in 1970, an arbitrary baseline to which all other years can be compared. Commercial employment data normalized to 1990, when industrial codes changed from SIC to NAICS – see page 136.

p Preliminary estimate.

Source: Compiled from tables in this publication for Wisconsin residential, commercial, industrial, agricultural and transportation energy use.

EXPENDITURES PER VEHICLE
14.1%

In 2008, expenditures per vehicle increased 14.1 percent. Commercial expenditures per employee and agricultural expenditures per acre increased by 9.7 and 15.6 percent, respectively. Residential expenditures per household increased by 2.0 percent. Industrial expenditures per $1,000 of value added increased by 6.1 percent.

Wisconsin Per Capita Resource Energy Consumption, by Type of Fuel

PER CAPITA RESOURCE ENERGY CONSUMPTION **0.9%**

Wisconsin's per capita resource energy consumption decreased 0.9 percent in 2008. However, compared to the low point in 1982, 2008 per capita energy use in Wisconsin rose 22.6 percent.

1970-2008 MILLIONS OF BTU

Year	Petroleum	Natural Gas	Coal	Renewable	Nuclear	Electric Imports[a]	Total
1970	103.6	74.7	80.4	6.2	0.4	-6.4	258.9
1975	104.0	80.0	57.4	6.4	24.3	-4.5	267.8
1980	96.6	73.2	69.0	10.4	22.7	-1.4	270.5
1982	85.3	65.9	67.6	10.7	23.5	2.3	255.2
1985	86.8	64.3	78.9	10.9	25.0	-0.4	265.6
1990	90.8	62.6	84.1	10.2	24.8	19.1	291.6
1995	92.2	77.9	94.8	10.1	24.2	25.2	324.4
1996	94.3	81.8	98.6	11.0	22.1	15.5	323.3
1997	94.1	80.2	102.2	10.6	8.5	24.9	320.5
1998	93.1	71.6	98.3	9.4	20.1	20.4	312.8
1999	95.5	73.8	99.3	9.7	24.4	18.8	321.5
2000	93.6	76.4	101.2	10.7	24.1	18.9	324.8
2001	93.2	69.5	100.7	10.4	24.0	22.7	320.5
2002	94.2	73.4	97.2	10.9	25.7	18.7	320.1
2003	92.4	74.6	99.8	11.2	25.0	16.0	319.0
2004	94.7	71.7	100.9	11.6	24.1	16.5	319.4
2005	90.4	76.7	98.9	11.4	15.2	21.4	314.0
2006	88.5	68.8	95.0	11.7	24.3	13.6	302.0
2007[r]	88.4	73.3	94.3	13.3	25.5	20.9	315.7
2008[p]	**84.7**	**74.6**	**97.5**	**14.3**	**25.3**	**16.6**	**313.0**

a "Electric Imports" is the estimated resource energy used in other states or Canada to produce the electricity imported into Wisconsin. This resource energy is estimated assuming 11,300 Btu of resource energy per kWh imported into Wisconsin. A negative sign indicates that resource energy was used in Wisconsin to produce electricity that was exported.

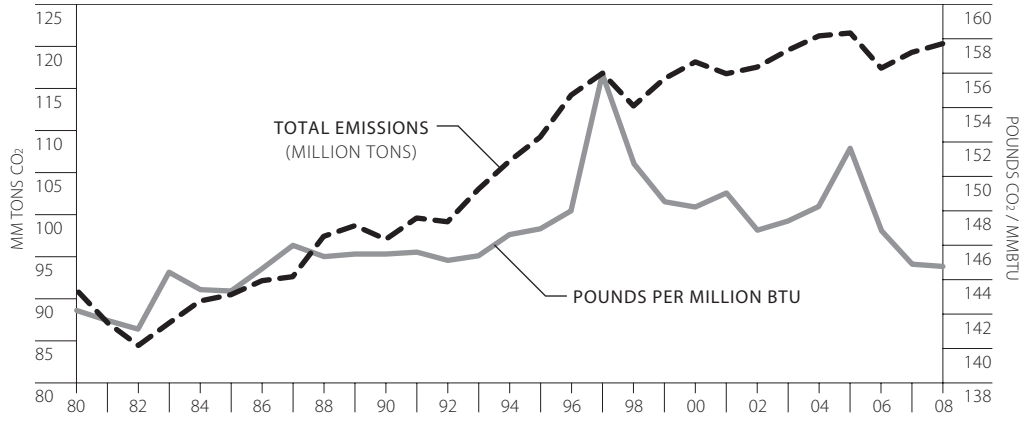
p Preliminary estimates.

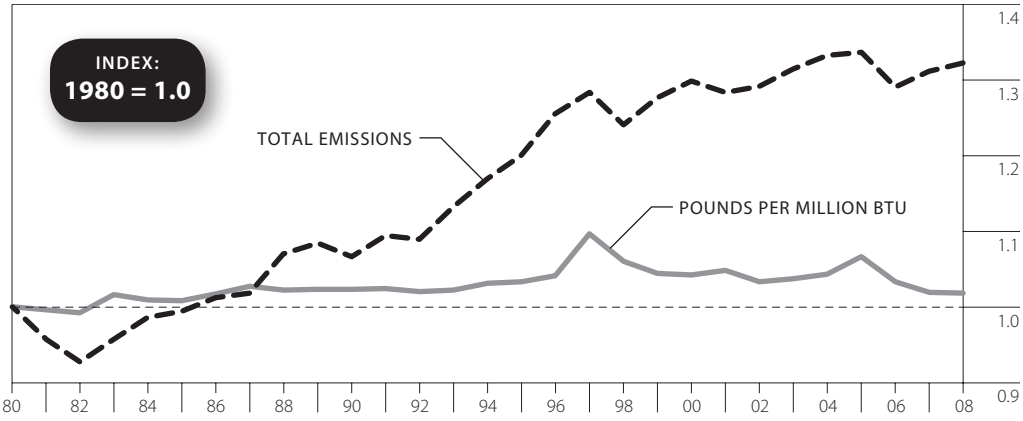
r Revised.

Source: Compiled from tables in this publication for Wisconsin petroleum, natural gas, coal and renewable energy use, electric imports and population.

Wisconsin Carbon Dioxide Emissions from Energy Use

1980-2008 MILLIONS OF TONS AND POUNDS PER MILLION BTU[a]





Year	Tons CO_2 (Millions)	Pounds CO_2 Per MMBtu
1980	91.0	142.2
1985	90.4	143.3
1990	97.0	145.5
1995	109.2	146.9
2000	118.1	148.2
2005	121.5	151.5
2006	117.3	146.8
2007[r]	119.2	144.9
2008[p]	**120.3**	**144.7**

a Does not include electric imports.

p Preliminary estimates.

r Revised.

Source: Compiled from tables in this book for fuel use, and U.S. EPA emission factors.

CO_2 EMISSIONS 0.9%

Wisconsin's CO_2 emissions from energy increased 0.9 percent in 2008. Since 1990, total CO_2 emissions have increased 24 percent. 2008 levels of CO_2 emissions are slightly higher than 2000 levels.

Wisconsin Residential Electricity and Natural Gas Use Per Customer

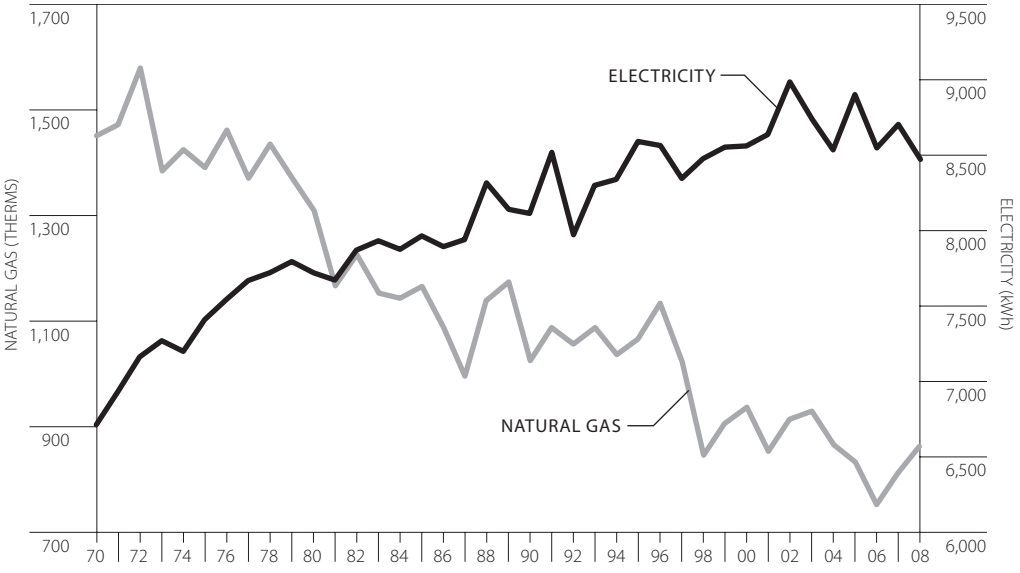
ELECTRICITY USE PER CUSTOMER
2.6%

Electricity use per customer decreased 2.6 percent in 2008.

NATURAL GAS USE PER CUSTOMER
6.3%

Natural gas use increased 6.3 percent. The increase in natural gas relates to the increase in Heating Degree Days (HDD) in 2008—an 11 percent increase over 2007. To learn more about HDDs, see pages 139-144 of this publication.

1970-2008



Year	Natural Gas[a]		Electricity	
	Number of Customers (Thousands)	Use Per Customer (Therms)	Number of Customers (Thousands)	Use Per Customer (kWh)
1970	754.5	1,450	1,429	6,711
1975	857.9	1,389	1,607	7,407
1980	951.3	1,309	1,801	7,716
1985	1,010.8	1,164	1,870	7,960
1990	1,122.1	1,022	2,017	8,109
1995	1,291.4	1,065	2,170	8,586
2000	1,458.0	935	2,329	8,557
2001	1,484.5	851	2,365	8,634
2002	1,514.7	913	2,404	8,976
2003	1,541.5	928	2,445	8,736
2004	1,569.7	865	2,486	8,526
2005	1,601.7	832	2,526	8,890
2006	1,615.8	750	2,550	8,540
2007	1,631.4	811	2,572	8,697
2008[p]	**1,645.7**	**862**	**2,584**	**8,470**

a U. S. Department of Energy/Energy Information Administration data from EIA forms 176 and 861.

p Preliminary estimates.

Source: Edison Electric Institute, *Statistical Yearbook* (1971-1996); American Gas Association, *Gas Facts* (1971-2000); U.S. Department of Energy, *Electric Sales and Revenues 1993-2000* [DOE/EIA-0540(2000)] (November 2001), *Natural Gas Annual, 1991-2007* [DOE/EIA-0131(09)] (January 2009) and *Natural Gas Monthly* [DOE/EIA-0130 (2009/06)] (June 2009).

Low Income Units Weatherized Through State and Utility Supported Programs

The Wisconsin Division of Energy Services, under the Department of Administration, contracts with various agencies throughout the state to provide weatherization[a] services to the low-income population. Agencies include community action agencies, housing authorities, tribes, local governments and other non-profit organizations.

The Weatherization Assistance Program was created under Title IV of the Energy Conservation and Production Act of 1976, and was designed to cut heating bills and save imported oil. The 1973 oil crisis affected the pocketbooks of most Americans for years, but its impact on low-income households was more dramatic—suddenly ballooning home heating bills threw them into debt and even into poverty.

In the 1990s, the trend toward more cost-effective measures continued with the development and widespread adoption of computerized home energy audits, which proved to be a key advance for weatherization service. This custom analysis of every home has become the hallmark of weatherization and ensures each client receives the most cost-effective treatment. See http://www.homeenergyplus.wi.gov/ for local information.

1980-2008

Year[d]	Department of Administration[b]	Wisconsin Utilities	Combined Totals
1980	5,811	—	5,811
1985	7,355	4,139	11,494
1990	9,302	3,384[c]	12,686
1995	6,126	5,455	11,581
1996	4,575	6,651	11,226
1997	4,530	4,626	9,156
1998	3,854	4,848	8,702
1999	3,703	5,700	9,403
2000[e]	4,246	6,434	10,680
2001	4,867	3,378	8,245
2002	5,948	1,493	7,441
2003	7,368	0	7,368
2004	8,027	0	8,027
2005	8,721	0	8,721
2006	9,057	0	9,057
2007	10,215	0	10,215
2008[p]	8,621	0	8,621
Total	**205,336**	**81,227**	**286,563**

a Weatherization is any job in which either the state or a utility, or both, installs envelope efficiency measures, appliance efficiency measures, heating equipment replacement/retrofits, or any combination of these.

b In July 1992, the Low Income Weatherization Assistance Program was transferred from the Department of Health and Family Services to the Department of Administration.

c Estimates.

d In 1992, the program year was changed to April-March.

e Wisconsin's Public Benefits Program began in October 2000. This program has transitioned responsibility for weatherizing low-income households from the utilities to the Department of Administration, Division of Energy. The transition was completed at the end of December 2002.

p Preliminary estimate.

Source: Public Service Commission of Wisconsin, Division of Energy Planning and Programs, unpublished annual data; Wisconsin Department of Health and Family Services, Energy Services Section, unpublished annual data (2001); Department of Administration (DOA), Division of Energy Services, *Annual Weatherization Production*, report to U.S. DOE for 2008, and computerized data which augments this report.

Fewer units were weatherized in program year 2008 because of efforts directed at high energy users, which reduced the number of units completed.

The transfer of responsibility for low income weatherization from the utilities to the Department of Administration (DOA) was completed on December 31, 2002. Through 2002, some homes received weatherization funding from both DOA and Wisconsin utilities, resulting in the possibility of limited data duplication. The problem of double-counting was eliminated when the program was transferred to DOA. Data duplication problems account for the apparent decline in total homes weatherized between 2000 and 2008.

Reported Building Activity Affected by Wisconsin Energy Codes

BUILDINGS CERTIFIED IN 2008 DECREASED 28%

More than 16,000 buildings were certified in 2008 as meeting Wisconsin's energy efficiency building codes[a], a 28 percent decrease from 2007. The codes, developed and enforced by the Wisconsin Department of Commerce or local code officials, establish minimum energy standards for new construction, major renovation and existing rental units.

1979-2008

Year	New One and Two Family Units[b]	New Manufactured Dwelling Units[c,f,g]	Manufactured Homes (HUD Certified)[f]	New & Altered Public and Commercial Buildings[d]	Existing Rental Properties[e]	Total
1979	NA	NA		4,332	NA	4,332
1980	3,302	906		3,818	NA	8,026
1985	6,146	1,147		6,380	2,267	15,940
1990	10,286	1,253		7,378	4,849	23,766
1995	12,846	1,991		8,434	6,955	30,226
1996	14,051	2,108		8,088	7,162	31,409
1997	13,390	1,826		7,341	7,488	30,045
1998	14,662	1,856		6,793	7,616	30,927
1999	13,282	2,292		7,387	7,270	30,231
2000	14,799	2,085		6,606	7,510	31,000
2001	14,653	1,926		6,501	6,296	29,376
2002	15,479	1,933		6,516	6,318	30,246
2003	18,851	1,999		6,455	5,136	32,441
2004	18,641	2,141	2,016	6,658	5,221	34,677
2005	19,762	1,962	1,710	6,810	4,948	35,192
2006	14,767	1,596	1,124	8,932	4,181	30,600
2007	13,393		698	6,034	3,538	23,663
2008[p]	**9,004**		**413**	**4,840**	**2,671**	**16,928**

a Includes Chapter Commerce 22 of the Uniform Dwelling Code; Chapter Commerce 63 of the Commercial Building Code; and Chapter Commerce 67 (State Rental Unit Energy Efficiency Standards).

b Based on Uniform Dwelling Code permits issued. Through 2004, communities under 2,500 population could opt out from code enforcement and may not have issued permits. Previous numbers may have included some manufactured dwelling units.

c Reporting is required for all manufactured dwelling units. These dwelling units meet state standards and are generally delivered to the dwelling site on a flatbed.

d Includes new building and alteration plans submitted and approved by the state under general building code provisions. Some projects are exempt from plan review or were locally approved instead.

e Properties certified as meeting code requirements during current year, regardless of year of actual transfer of ownership.

f These dwelling units meet federal HUD standards, which are lower than state standards, have a chassis and generally are towed to the dwelling site.

g From 2007 forward, this category is fully captured in the One and Two Family Dwelling total.

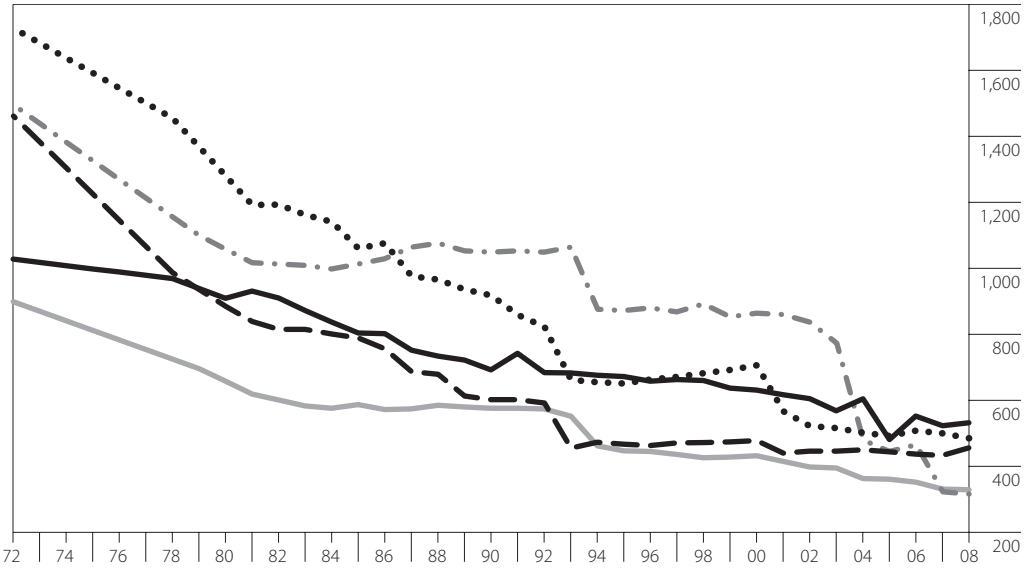
p Preliminary.

NA – Not applicable. Rental Unit Energy Efficiency Code effective January 1, 1985 and Uniform Dwelling Code Effective June 1, 1980.

Source: Department of Commerce, Division of Safety and Buildings, internal data files.

Energy Consumption by Major New Household Appliances

1972-2008 AVERAGE kWh PER YEAR



Year	Room A/C[a]	Washing Machine[b]	Dishwasher[b]	Refrigerator	Freezer
1972	1,026	1,494	897	1,726	1,460
1980[c]	907	1,056	656	1,278	883
1985	802	1,011	585	1,058	787
1990	690	1,047	574	916	600
1995	670	870	445	649	465
2000	629	862	430	704	476
2001	615	858	413	565	438
2002	603	835	396	520	444
2003	566	772	393	514	444
2004	602	478	361	500	448
2005	478	443	359	490	442
2006	550	463	350	506	435
2007	521	321	329	498	431
2008[e]	**530**	**314**	**327**	**483**	**454**
Energy Star[d]	**556**	**238**	**331**	**475**	**433**
Best Available[f]	**520**	**122**	**180**	**441**	**340**

a Room air conditioner assumes 600 hours per year.

b Loads per year: washing machine (392), dishwasher (215) . Energy use assumes electric water heater.

c Refrigerator and freezer values estimated.

d U.S. Environmental Protection Agency (EPA) Energy Star efficiency values for average size appliance.

e Refrigerator and freezer standards increased July 1, 2001. Air conditioner standards increased October 1, 2000.

f Best available (most energy efficient) appliance that can be purchased for the average size and type sold today.

Source: Association of Home Appliance Manufacturers (AHAM) Information Center.

Since 1980, energy efficiencies of new household appliances sold in the U.S. have increased from 29 percent to 60 percent, depending upon the appliance. From 1994 to 2000, average efficiencies remained essentially unchanged. However, changes in federal energy efficiency standards since 2000 have reduced average new appliance energy consumption from 4.6 percent for freezers to 63.6 percent for washing machines.

Appliance data makes it easier to understand residential energy use trends.

Wisconsin Commercial Electricity and Natural Gas Use Per Customer

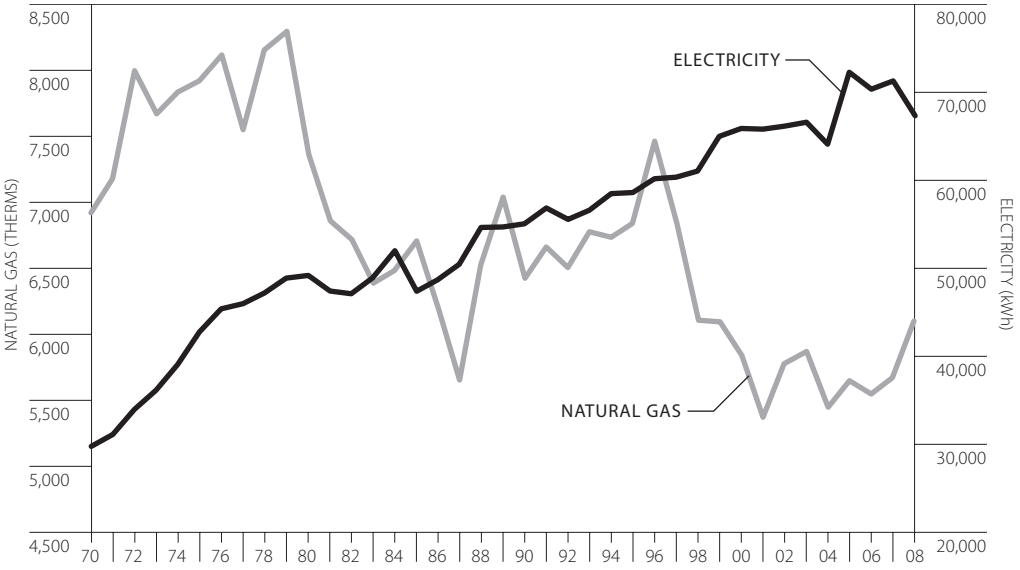
ELECTRICITY USE PER CUSTOMER
5.5%

Commercial electricity use per customer in 2008 decreased 5.5 percent.

NATURAL GAS USE PER CUSTOMER
7.6%

Natural gas use per customer increased 7.6 percent. The increase in natural gas relates to the increase in Heating Degree Days (HDD) in 2008—an 11 percent increase over 2007. To learn more about HDDs, see pages 139-144 of this publication.

1970-2008



Year	Natural Gas		Electricity	
	Number of Customers (Thousands)	Use Per Customer (Therms)	Number of Customers (Thousands)	Use Per Customer (kWh)
1970	61.0	6,918	167	29,701
1975	72.0	7,917	178	42,709
1980	83.4	7,362	193	49,115
1985	89.3	6,697	224	47,292
1990	104.0	6,413	229	54,990
1995	125.5	6,837	254	58,540
2000	140.3	5,837	278	65,817
2001	144.3	5,357	284	65,741
2002	149.8	5,774	290	66,081
2003	150.1	5,863	301	66,522
2004	151.9	5,438	302	63,963
2005	155.1	5,642	312	72,156
2006	157.7	5,542	324	70,272
2007[r]	159.4	5,668	330	71,203
2008[p]	**161.5**	**6,099**	**335**	**67,300**

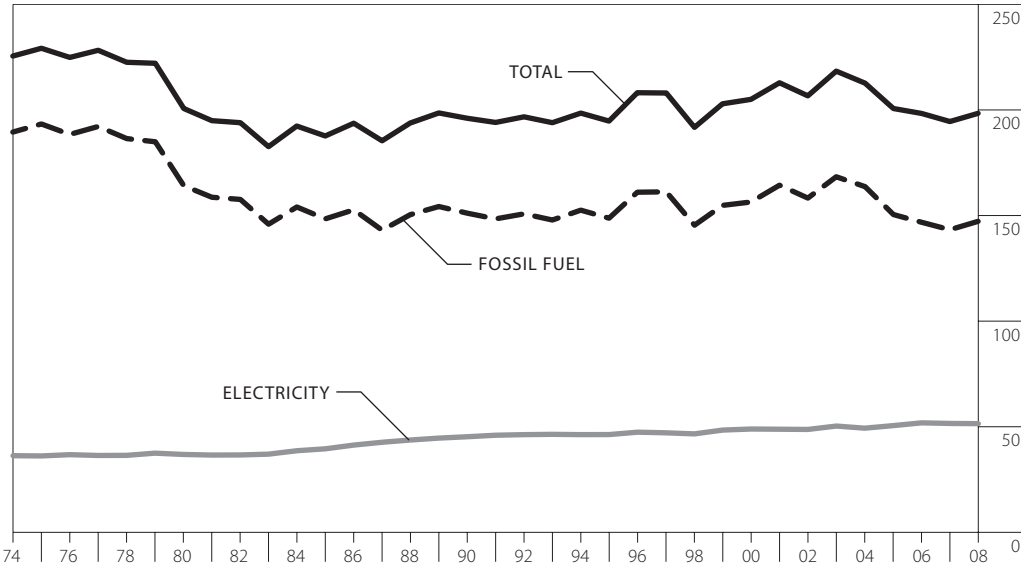
r Revised

p Preliminary estimates.

Source: Edison Electric Institute, *Statistical Yearbook* (1971-1996); American Gas Association, *Gas Facts* (1971-2000); U.S. Department of Energy, *Electric Sales and Revenues 1993-2000* [DOE/EIA-0540(2000)] (November 2001); U.S. Department of Energy/Energy Information Administration (2008) data from EIA form 861 [http://www.eia.doe.gov/cneaf/electricity/page/eia861.html]; *Natural Gas Annual, 1991-2008* [DOE/EIA-0131(07)] (January 2009), and *Natural Gas Monthly* [DOE/EIA-0130 (2009/06)] (June 2009).

Energy Use in State Owned Buildings

1974-2008 THOUSANDS OF BTU PER GROSS SQUARE FOOT PER YEAR



Fiscal Year	Fossil Fuel	Electricity	Total Energy BTU/GSF	Total Energy Weather-Adjusted[a]	Million Gross Square Feet
1974	189.2	36.0	225.2		42.7
1975	193.0	35.9	228.9		43.6
1980	163.9	36.6	200.4		46.2
1985	148.1	39.2	187.3		47.9
1990	150.8	44.9	195.7		49.7
1995	148.4	46.0	194.4		52.6
2000	156.1	48.6	204.7		55.4
2001	164.0	48.5	212.5		56.6
2002	157.9	48.4	206.3		57.9
2003	168.0	50.0	218.0		58.9
2004	163.4	49.0	212.4		59.4
2005[r]	150.2	50.2	200.4	200.4	64.7
2006[r]	146.5	51.5	198.0	199.9	65.3
2007[r]	142.9	51.2	194.2	193.6	66.6
2008[p]	**147.0**	**51.1**	**198.1**	**190.5**	**67.8**

a Weather-adjusted data are not available previous to 2005.

b http://www.wisgov.state.wi.us/journal_media_detail.asp?locid=19&prid=1907

p Preliminary estimates.

r Revised.

Source: State of Wisconsin, Department of Administration; *Energy Use in State Owned Facilities, Report for Fiscal Year 2008.* http://www.doa.state.wi.us/docs_view2.asp?docid=990.

TOTAL ENERGY USE PER GSF 1.6% IN 2008

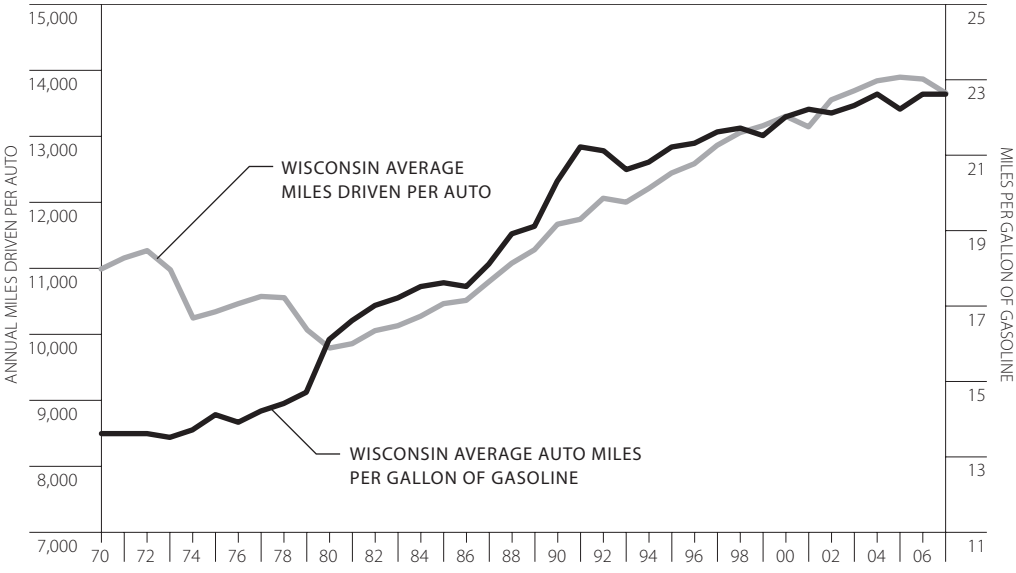
In 2008, total energy use per gross square foot (GSF), adjusted for weather, decreased 1.6 percent from 2007. Since 1974, overall use per GSF in state owned buildings fell 12.0 percent. Electricity use has increased 42.2 percent per GSF between 1974 and 2008, while fossil fuel use decreased 22.3 percent.

Energy use in state-owned buildings was weather-corrected back to 2005 to meet the requirements set forth in Executive Order 145[b] that addressed energy usage in state facilities. All data are based on the State Fiscal Year, July 1 - June 30, for example the data for 2008 are for the period July 1, 2007 to June 30, 2008.

Average Miles Driven Per Auto and Average Auto Miles Per Gallon of Gasoline, Wisconsin and United States

The average number of miles driven annually per automobile in Wisconsin decreased slightly in 2007. It is nearly 39 percent higher than in 1980 and 11 percent higher than the U.S. average. Fuel efficiency has been relatively stagnant since 1991 because of the increasing number of less fuel efficient large cars sold each year. Wisconsin cars were nearly 67 percent more fuel efficient in 2007 than in 1973.

1970-2007



Year	Average Annual Miles Per Auto[a,b]		Average Auto Miles Per Gallon of Gasoline[a,b]	
	Wisconsin	U.S.	Wisconsin	U.S.
1970	10,980	9,892	13.6	13.5
1975	10,332	9,309	14.1	14.0
1980	9,782	8,813	16.1	16.0
1985	10,455	9,419	17.6	17.5
1990	11,659	10,504	20.3	20.2
1993	11,992	10,804	20.6	20.5
1995	12,435	11,203	21.2	21.1
2000	13,293	11,976	22.0	21.9
2001	13,132	11,831	22.2	22.1
2002	13,544	12,202	22.1	22.0
2003	13,681	12,325	22.3	22.2
2004	13,831	12,460	22.6	22.5
2005	13,886	12,510	22.2	22.1
2006[r]	13,858	12,485	22.6	22.5
2007[p]	**13,645**	**12,293**	**22.6**	**22.5**

a Wisconsin and U.S. figures come from different sources and may not be directly comparable.

b Does not include minivans, pickups or sport utility vehicles.

p Preliminary estimates.

r Revised.

Source: Wisconsin Department of Transportation, Division of Planning and Budget, Bureau of Policy Planning and Analysis, personal communication (1993); U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review* [DOE/EIA-0035 (2009/05)] (February 2009) http://www.eia.doe.gov/emeu/mer/.